OM protein - protein search, using sw model

Run on:

October 2, 2002, 08:21:53; Search time 28.78 Seconds

(without alignments)

15.438 Million cell updates/sec

Title:

US-09-781-133-1

Perfect score: 20

Sequence:

1 LVFF 4

Scoring table: BLOSUM62

Gapop 10.0, Gapext 0.5

Searched:

747574 segs, 111073796 residues

Total number of hits satisfying chosen parameters:

135323

Minimum DB seq length: 0 Maximum DB seq length: 10

Post-processing: Minimum Match 0%

Maximum Match 100% Listing first 100 summaries

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A Geneseq 032802:*

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- 22: /SIDS1/gcgdata/hold-geneseq/geneseqp-embl/AA2001.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Λ | 1 |
|---|----|
| 7 | ∕α |

| Result No. | Query | n Length DB ID | Description |
|---------------|-------------|----------------|--------------------|
| 110. | Score Mater | | |
| 1 | 20 100.0 | 4 17 AAW02317 | Beta-amyloid modul |
| 2 | 20 100.0 | 4 18 AAW45955 | Amyloid beta pepti |
| 3 | 20 100.0 | 4 19 AAW51318 | Peptide #1 useful |
| 4 | 20 100.0 | 4 19 AAW47234 | Beta-amyloid pepti |
| 5 | 20 100.0 | 4 20 AAW89364 | Beta-amyloid pepti |
| 6 | 20 100.0 | 4 21 AAB27021 | Beta-amyloid pepti |
| 7 | 20 100.0 | 4 21 AAY49973 | Natural beta amylo |
| 8 | 20 100.0 | 4 22 AAE12515 | Beta-amyloid precu |
| 9 | 20 100.0 | 4 22 AAE12517 | APP 770 Abeta pept |
| 10 | 20 100.0 | 4 22 AAE09985 | Beta-amyloid pepti |
| 11 | 20 100.0 | 5 16 AAR87922 | Test peptide used |
| 12 | 20 100.0 | 5 17 AAW02322 | Beta-amyloid modul |
| 13 | 20 100.0 | 5 17 AAW02332 | Beta-amyloid modul |
| 14 | 20 100.0 | 5 17 AAW02315 | Beta-amyloid modul |
| 15 | 20 100.0 | 5 17 AAW02316 | Beta-amyloid modul |
| 16 | 20 100.0 | 5 18 AAW45933 | Partial sequence o |
| 17 | 20 100.0 | 5 18 AAW45962 | Peptide derived fr |
| 18 | 20 100.0 | 5 19 AAW51340 | Peptide #23 useful |
| 19 | 20 100.0 | 5 19 AAW51322 | Peptide #5 useful |
| 20 | 20 100.0 | 5 19 AAW51335 | Peptide #18 useful |
| 21 | 20 100.0 | 5 19 AAW51339 | Peptide #22 useful |
| 22 | 20 100.0 | 5 19 AAW51341 | Peptide #24 useful |
| 23 | 20 100.0 | 5 19 AAW51342 | Peptide #25 useful |
| 24 | 20 100.0 | 5 20 AAW29089 | A-beta-binding pep |
| 25 | 20 100.0 | 5 20 AAW89389 | Beta-amyloid pepti |
| 26 | 20 100.0 | 5 20 AAW89367 | Beta-amyloid pepti |
| 27 | 20 100.0 | 5 20 AAW89381 | Beta-amyloid pepti |
| 28 | 20 100.0 | 5 20 AAW89365 | Beta-amyloid pepti |

| 29 | 20 100.0 | 5 21 AAB27022 | Beta-amyloid pepti |
|----|----------|--|--------------------|
| 30 | 20 100.0 | 5 21 AAB27025 | Beta-amyloid pepti |
| 31 | 20 100.0 | 5 21 AAB27035 | Beta-amyloid pepti |
| 32 | 20 100.0 | 5 21 AAY79937 | Beta-amyloid recog |
| 33 | 20 100.0 | 5 21 AAY49979 | Natural beta amylo |
| 34 | 20 100.0 | 5 21 AAY49994 | Natural beta amylo |
| 35 | 20 100.0 | 5 21 AAY49997 | Natural beta amylo |
| 36 | 20 100.0 | 5 21 AAY50000 | Natural beta amylo |
| 37 | 20 100.0 | 5 21 AAY56101 | Natural beta amylo |
| 38 | 20 100.0 | 5 22 AAE12510 | Beta-amyloid precu |
| 39 | 20 100.0 | 5 22 AAE12522 | APP 770 Abeta pept |
| 40 | 20 100.0 | 5 22 AAE12533 | APP70 abeta peptid |
| 41 | 20 100.0 | 5 22 AAE12534 | APP70 abeta peptid |
| 42 | 20 100.0 | 5 22 AAE12549 | Peptide #3 for ana |
| 43 | 20 100.0 | 5 22 AAB82629 | All-D peptide used |
| 44 | 20 100.0 | 5 22 AAB82637 | All-D peptide used |
| 45 | 20 100.0 | 5 22 AAB82644 | All-D peptide used |
| 46 | 20 100.0 | 5 22 AAB82645 | All-D peptide used |
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| 50 | 20 100.0 | 5 22 AAB82649 | All-D peptide used |
| 51 | 20 100.0 | 5 22 AAB62803 | Residues 16-20 of |
| 52 | 20 100.0 | 5 22 AAB67279 | Residues 16-20 of |
| 53 | 20 100.0 | 5 22 AAB48481 | Antifibrillogenic |
| 54 | 20 100.0 | 5 22 AAB48489 | Antifibrillogenic |
| 55 | 20 100.0 | 5 22 AAE09986 | Beta-amyloid pepti |
| 56 | 20 100.0 | 5 22 AAE10008 | Beta-amyloid pepti |
| 57 | 20 100.0 | 5 22 AAE10009 | Beta-amyloid pepti |
| 58 | 20 100.0 | 5 22 AAE10010 | Beta-amyloid pepti |
| 59 | 20 100.0 | 5 22 AAE10011 | Beta-amyloid pepti |
| 60 | 20 100.0 | 5 22 AAE10176 | Beta-amyloid pepti |
| 61 | 20 100.0 | 5 22 AAE10177 | Beta-amyloid pepti |
| 62 | 20 100.0 | 6 17 AAW02327 | Beta-amyloid modul |
| 63 | 20 100.0 | 6 17 AAW02331 | Beta-amyloid modul |
| 64 | 20 100.0 | 6 17 AAW02313 | Beta-amyloid modul |
| 65 | 20 100.0 | 6 17 AAW02314 | Beta-amyloid modul |
| 66 | 20 100.0 | 6 18 AAW45944 | Amyloid beta pepti |
| 67 | 20 100.0 | 6 20 AAW29090 | A-beta-binding pep |
| 68 | 20 100.0 | 6 20 AAW29091 | A-beta-binding pep |
| 69 | 20 100.0 | 6 20 AAW29092 | A-beta-binding pep |
| 70 | 20 100.0 | 6 20 AAW89385 | Beta-amyloid pepti |
| 71 | 20 100.0 | 6 20 AAW89388 | Beta-amyloid pepti |
| 72 | | 6 20 AAW89377 | Beta-amyloid pepti |
| 73 | | 6 20 AAW89378 | Beta-amyloid pepti |
| 13 | 20 100.0 | 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | |

Beta-amyloid pepti 6 21 AAB27036 20 100.0 74 Beta-amyloid pepti 6 21 AAB27045 75 20 100.0 All-D peptide used 6 22 AAB82632 20 100.0 76 Antifibrillogenic 6 22 AAB48476 20 100.0 77 Antifibrillogenic 6 22 AAB48484 20 100.0 78 Antifibrillogenic 6 22 AAB48496 20 100.0 79 Beta amyloid prote 7 14 AAR45231 20 100.0 80 Beta amyloid prote 7 14 AAR45232 20 100.0 81 Beta amyloid prote 7 14 AAR45233 20 100.0 82 Test peptide used 20 100.0 7 16 AAR87921 83 Non-amnestic pepti 7 16 AAR88300 20 100.0 84 Beta-amyloid modul 20 100.0 7 17 AAW02311 85 Beta-amyloid modul 7 17 AAW02312 20 100.0 86 Amyloid beta pepti 7 18 AAW45940 20 100.0 87 Beta-amyloid pepti 7 20 AAW89375 88 20 100.0 Beta-amyloid pepti 7 20 AAW89376 20 100.0 89 All-D peptide used 7 22 AAB82624 90 20 100.0 All-D peptide used 7 22 AAB82639 20 100.0 91 All-D peptide used 7 22 AAB82640 20 100.0 92 Residues 16-22 of 7 22 AAB67281 20 100.0 93 Antifibrillogenic 7 22 AAB48475 20 100.0 94 Antifibrillogenic 7 22 AAB48491 20 100.0 95 Antifibrillogenic 7 22 AAB48492 20 100.0 96 Cerebrovascular am 8 11 AAR08190 20 100.0 97 Beta-amyloid modul 8 17 AAW02310 98 20 100.0 Amyloid beta pepti 8 18 AAW45937 20 100.0 99 Peptide derived fr 8 18 AAW45967 20 100.0 100

ALIGNMENTS

RESULT 1
AAW02317
ID AAW02317 standard; peptide; 4 AA.
XX
AC AAW02317;
XX
DT 02-MAY-1997 (first entry)
XX
DE Beta-amyloid modulator peptide #8.

XX
 KW Beta-amyloid; modulator; amyloid plaque; brain lesion; amyloidosis;
 KW cerebral blood vessel; Alzheimer's disease; amyloidogenic protein;
 KW familial amyloid polyneuropathy; familial amyloid cardiomyopathy;

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KW isolated cardiac amyloidosis; systemic senile amyloidosis; insulinoma;
     bovine spongiform encephalopathy; Creutzfeldt-Jakob disease; urticaria;
KW
     adult-onset diabetes; familial Mediterranean fever; therapy; deafness;
KW
     scrapie; familial amyloid nephropathy; hereditary cerebral haemorrhage.
KW
XX
OS Synthetic.
XX
PN WO9628471-A1.
XX
PD 19-SEP-1996.
XX
PF 14-MAR-1996; 96WO-US03492.
XX
PR 27-OCT-1995; 95US-0548998.
PR 14-MAR-1995; 95US-0404831.
PR 07-JUN-1995; 95US-0475579.
XX
PA (PHAR-) PHARM PEPTIDES INC.
 XX
PI Benjamin H, Chin J, Findeis MA, Garnick MB, Gefter ML;
 PI Hundal A, Kasman L, Kelley M, Kubasek W, Lee J;
 PI Molineaux S, Musso G, Reed MJ, Signer ER, Wakefield J;
 XX
 DR WPI; 1996-433762/43.
 XX
 PT Modulators of amyloid aggregation - comprising, e.g. amyloidogenic
 PT protein coupled (in)directly to at least 1 modifying gp., useful in
 PT treatment of Alzheimer's disease
 XX
 PS Claim 16; Page 91; 106pp; English.
 XX
 CC AAW02310-W02332 represent the peptide portions of the beta-amyloid
 CC modulator compounds of the invention. Beta-amyloid peptide is a 4
 CC kilodalton peptide that is the major protein component of amyloid
 CC plaques. Amyloid plaques are present both in the brain lesions, and in
 CC the walls of cerebral blood vessels in Alzheimer's disease patients.
 CC The amyloid modulators of the invention comprise an amyloidogenic protein
 CC or peptide (such as this sequence) coupled directly or indirectly to at
 CC least one modifying group. The modifying group is preferably a cyclic,
 CC heterocyclic, or polycyclic group, such as declain, a cholanyl group, a
 CC biotin containing group, or a fluorescein containing group. These
 CC compounds then modulate the aggregation of these sequences to natural
 CC amyloid proteins or peptides when contacted with the natural
  CC amyloidogenic proteins or peptides. The modulator compounds can be used
  CC in the treatment of disorders associated with amyloidosis, such as
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CC familial amyloid polyneuropathy, familial amyloid cardiomyopathy,
CC isolated cardiac amyloidosis, systemic senile amyloidosis, scrapie,
CC bovine spongiform encephalopathy, Creutzfeldt-Jakob disease, adult-onset
CC diabetes, insulinoma, familial Mediterranean fever, familial amyloid
CC nephropathy with urticaria and deafness, hereditary cerebral haemorrhage
CC and other types of amyloidosis. The modulators are also useful for the
CC treatment of disorders associated with beta-amyloidosis, especially
CC Alzheimer's disease.
XX
SQ Sequence 4 AA;
                     100.0%; Score 20; DB 17; Length 4;
  Query Match
  Best Local Similarity 100.0%, Pred. No. 6.4e+05;
  Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
       1 LVFF 4
 Qy
       \parallel\parallel
       1 lvff 4
 Db
 RESULT 2
 AAW45955
 ID AAW45955 standard; peptide; 4 AA.
 XX
 AC AAW45955;
 XX
 DT 30-JUN-1998 (first entry)
 XX
 DE Amyloid beta peptide fragment.
 XX
 KW Amyloid beta peptide; Alzheimer's disease; polymerisation; aggregation;
       positron emission tomography, PET, Down's syndrome; amyloidosis.
  KW
  XX
  OS Homo sapiens.
  XX
  PN WO9721728-A1.
  XX
  PD 19-JUN-1997.
  XX
  PF 09-DEC-1996; 96WO-SE01621.
  XX
  PR 29-DEC-1995; 95US-0009386.
  PR 12-DEC-1995; 95SE-0004467.
  XX
```

```
PA (KARO-) KAROLINSKA INNOVATIONS AB.
XX
PI Naslund J, Nordstedt C, Terenius L, Thyberg J, Tjernberg LO;
XX
DR WPI; 1997-332723/30.
XX
PT Use of new and known peptide(s) for inhibition of polymerisation of
PT amyloid beta peptide - e.g. for treatment of Alzheimer's disease or
PT Down's syndrome associated with amyloidosis.
XX
PS Example 1, Figure 2B, 31pp, English.
XX
CC This sequence represents a fragment of the amyloid beta peptide. The
     invention relates to the use of peptide compounds for inhibition of
CC
CC polymerisation of amyloid beta peptide (ABP), as model substances for
CC synthesis of ABP-ligands for inhibition of polymerisation of ABP, as a
CC tool for the identification of other organic compounds with similar
CC functional properties, or as ligands in positron emission tomography.
CC The peptides may be used in treatment of amyloidosis, especially in
CC treatment of Alzheimer's disease associated with amyloidosis, for
 CC treatment or prevention of demens in patients with Down's syndrome, for
 CC treatment or prevention of hereditary cerebral haemorrhage with
 CC amyloidosis (Dutch type) or for the prevention of fibril formation of
 CC human amyloid protein. They can also be used for identifying other
 CC molecules with similar properties and/or as ligands for detection of
 CC amyloid deposits using e.g. positron emission tomography.
 XX
 SO Sequence 4 AA;
                       100.0%; Score 20; DB 18; Length 4;
  Query Match
  Best Local Similarity 100.0%; Pred. No. 6.4e+05;
  Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
        1 LVFF 4
 Qy
       Ш
        1 lvff 4
 Db
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RESULT 7
AAY49973
ID AAY49973 standard; peptide; 4 AA.
XX

```
AC AAY49973;
XX
DT 04-FEB-2000 (first entry)
XX
DE Natural beta amyloid peptide aggregation modulating peptide #1.
XX
KW Beta amyloid peptide aggregation; modulation; D-amino acid; diagnosis;
KW retro-inverso isomer; amyloidogenic disease; Alzheimer's disease;
KW Down's syndrome; hereditary cerebral haemorrhage; HCHWA-D;
     amyloidosis-Dutch-type.
KW
XX
OS Synthetic.
OS Homo sapiens.
XX
               Location/Qualifiers
FH Key
FT Misc-difference 1..4
             /note= "D-form residues"
FT
XX
PN US5985242-A.
XX
PD 16-NOV-1999.
XX
PF 27-AUG-1997; 97US-0920162.
XX
PR 27-OCT-1995; 95US-0548998.
PR 14-MAR-1996; 96US-0616081.
PR 27-AUG-1996; 96US-0703675.
PR 21-JUL-1997; 97US-0897342.
XX
PA (PRAE-) PRAECIS PHARM INC.
 XX
PI Wakefield J, Molineaux S, Signer ER, Kelley M, Komar-Panicucci S;
 PI Musso G, Phillips K, Hayward NJ, Gefter ML, Findeis MA, Lee J,
 PI Arico-Muendel CC, Chin J;
 XX
 DR WPI; 2000-022266/02.
 XX
 PT Compound comprising a peptidic structure, an amino-terminal modifying
 PT group and a carboxy-terminal modifying group, useful for treating
 PT Alzheimer's disease -
 XX
 PS Claim 1; Column 61; 40pp; English.
 XX
 CC The present invention describes a compound of formula A-(Xaa)-B,
 CC comprising a peptidic structure (Xaa), an amino-terminal modifying
```

CC group (A), and a carboxy-terminal modifying group (B). AAY49973 to CC AAY49994 represent specifically claimed examples of (Xaa). Also CC described is a method for inhibiting aggregation of natural beta-amyloid peptides and treating Alzheimer's disease, comprising contacting the amyloid peptides with A-(Xaa)-B; and a method for detecting the presence of natural beta-amyloid peptides in a biological sample by contacting with A-(Xaa)-B. The compound is useful for treating Alzheimer's disease and for detecting the presence of natural beta-amyloid peptides in a biological sample. The compound can also be used prophylactically or therapeutically to treat other clinical occurrences of beta-amyloid

CC deposition, such as in Down's syndrome individuals and in patients with CC hereditary cerebral haemorrhage with amyloidosis-Dutch-type (HCHWA-D).

XX SQ Sequence 4 AA;

Query Match 100.0%; Score 20; DB 21; Length 4; Best Local Similarity 100.0%; Pred. No. 6.4e+05; Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LVFF 4 ||||| Db 1 lvff 4

Search completed: October 2, 2002, 08:26:25

Job time: 272 sec

OM protein - protein search, using sw model

Run on:

October 2, 2002, 08:24:53; Search time 12.86 Seconds

(without alignments)

7.597 Million cell updates/sec

Title:

US-09-781-133-1

Perfect score: 20

1 LVFF 4

Scoring table: BLOSUM62

Sequence:

Gapop 10.0, Gapext 0.5

Searched:

231628 seqs, 24425594 residues

Total number of hits satisfying chosen parameters:

70601

Minimum DB seq length: 0

Maximum DB seq length: 10

Post-processing: Minimum Match 0%

Maximum Match 100% Listing first 100 summaries

Database:

Issued Patents AA:*

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5: /cgn2 6/ptodata/2/iaa/PCTUS COMB.pep:*

6: /cgn2 6/ptodata/2/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Result Query

No. Score Match Length DB ID

Description

| 1 | 20 100.0 | 4 1 US-08-304-585-10 | Sequence 10, Appl |
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| 2 | 20 100.0 | 4 2 US-08-612-785B-12 | Sequence 12, Appl |
| 3 | 20 100.0 | 4 2 US-08-920-162A-8 | Sequence 8, Appli |
| 4 | 20 100.0 | 4 2 US-08-920-162A-9 | Sequence 9, Appli |
| 5 | 20 100.0 | 4 4 US-09-356-931-8 | Sequence 8, Appli |
| 6 | 20 100.0 | 4 4 US-09-356-931-9 | Sequence 9, Appli |
| 7 | 20 100.0 | 4 4 US-08-703-675C-8 | Sequence 8, Appli |
| 8 | 20 100.0 | 4 4 US-08-703-675C-9 | Sequence 9, Appli |
| 9 | 20 100.0 | 4 4 US-09-242-724-29 | Sequence 29, Appl |
| 10 | 20 100.0 | 4 4 US-08-617-267C-12 | Sequence 12, Appl |
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| 16 | 20 100.0 | 5 2 US-08-920-162A-3 | Sequence 3, Appli |
| 17 | 20 100.0 | 5 2 US-08-920-162A-16 | Sequence 16, Appl |
| 18 | 20 100.0 | 5 2 US-08-920-162A-27 | Sequence 27, Appl |
| 19 | 20 100.0 | 5 2 US-08-920-162A-28 | Sequence 28, Appl |
| 20 | 20 100.0 | 5 2 US-08-920-162A-33 | Sequence 33, Appl |
| 21 | 20 100.0 | 5 2 US-08-920-162A-34 | Sequence 34, Appl |
| 22 | 20 100.0 | 5 3 US-08-970-833-2 | Sequence 2, Appli |
| 23 | 20 100.0 | 5 4 US-09-356-931-3 | Sequence 3, Appli |
| 24 | 20 100.0 | 5 4 US-09-356-931-16 | Sequence 16, Appl |
| 25 | 20 100.0 | 5 4 US-09-356-931-27 | Sequence 27, Appl |
| 26 | 20 100.0 | 5 4 US-09-356-931-28 | Sequence 28, Appl |
| 27 | 20 100.0 | 5 4 US-09-356-931-33 | Sequence 33, Appl |
| 28 | 20 100.0 | 5 4 US-09-356-931-34 | Sequence 34, Appl |
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                  8 4 US-08-703-675C-28
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71
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                  8 4 US-08-617-267C-5
72
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                  8 5 PCT-US96-10220-1
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                  9 4 US-09-264-709A-4
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                  10 3 US-08-970-833-3
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                                               Sequence 11, Appl
                  4 2 US-08-920-162A-11
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77
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          85.0
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78
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                  4 4 US-09-356-931-13
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                  4 4 US-08-703-675C-13
                                               Sequence 13, Appl
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          85.0
                                               Sequence 18, Appl
                  5 2 US-08-920-162A-18
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      17 85.0
                                               Sequence 20, Appl
                  5 2 US-08-920-162A-20
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      17 85.0
                                               Sequence 32, Appl
                  5 2 US-08-920-162A-32
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                  5 4 US-09-356-931-32
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                                               Sequence 18, Appl
                  5 4 US-08-703-675C-18
          85.0
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      17
                                               Sequence 20, Appl
          85.0
                  5 4 US-08-703-675C-20
 89
       17
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| 85.0 | 5 4 | US-08-703-675C-27 | Sequence 27, Appl |
|------|--|--|---|
| | | | Sequence 4, Appli |
| | | | Sequence 4, Appli |
| | 3 1 | US-08-079-812-139 | Sequence 139, App |
| | 3 2 | US-08-612-785B-19 | Sequence 19, Appl |
| | | | Sequence 19, Appl |
| | | | Sequence 5, Appli |
| | 4 1 | US-08-285-777-1 | Sequence 1, Appli |
| | 4 2 | US-08-612-785B-24 | Sequence 24, Appl |
| | | | Sequence 37, Appl |
| | 4 4 | 4 US-08-617-267C-24 | Sequence 24, Appl |
| | 85.0 85.0 85.0 80.0 80.0 80.0 80.0 80.0 | 85.0 9 1 85.0 9 1 80.0 3 1 80.0 3 2 80.0 3 4 80.0 3 4 80.0 4 1 80.0 4 2 80.0 4 4 | 85.0 9 1 US-07-716-826-4 85.0 9 1 US-08-012-711-4 80.0 3 1 US-08-079-812-139 80.0 3 2 US-08-612-785B-19 80.0 3 4 US-08-617-267C-19 80.0 3 4 US-09-264-709A-5 80.0 4 1 US-08-285-777-1 80.0 4 2 US-08-612-785B-24 80.0 4 4 US-08-703-675C-37 |

RESULT 1

US-08-304-585-10

; Sequence 10, Application US/08304585

; Patent No. 5721106

GENERAL INFORMATION:

APPLICANT: Maggio, John E.

APPLICANT: Mantyh, Patrick W.

TITLE OF INVENTION: LABELLED BETA-AMYLOID PEPTIDE AND

TITLE OF INVENTION: METHODS FOR USE IN DETECTING ALZHEIMER'S DISEASE

NUMBER OF SEQUENCES: 12 CORRESPONDENCE ADDRESS:

ADDRESSEE: Mueting, Raasch, Gebhardt & Schwappach, P.A.

STREET: P.O. Box 581415

CITY: Minneapolis

STATE: MN

COUNTRY: USA

ZIP: 55458-1415

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/304,585

FILING DATE: 12-SEP-1994

CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:

NAME: Mueting, Ann M.

REGISTRATION NUMBER: 33,977

REFERENCE/DOCKET NUMBER: 110.00010120

TELECOMMUNICATION INFORMATION:

TELEPHONE: 612-305-1217 TELEFAX: 612-305-1228

INFORMATION FOR SEQ ID NO: 10:

SEQUENCE CHARACTERISTICS:

LENGTH: 4 amino acids

TYPE: amino acid

STRANDEDNESS: not relevant

TOPOLOGY: not relevant MOLECULE TYPE: peptide

US-08-304-585-10

Query Match 100.0%; Score 20; DB 1; Length 4;

Best Local Similarity 100.0%; Pred. No. 1.7e+05;

Matches 4; Conservative 0, Mismatches 0; Indels 0; Gaps 0;

Qy 1 LVFF 4

Db 1 LVFF 4

RESULT 11

US-08-127-904-15

; Sequence 15, Application US/08127904

: Patent No. 5470951

GENERAL INFORMATION:

APPLICANT: Eugene Roberts

TITLE OF INVENTION: Method For Antagonizing

TITLE OF INVENTION: Amnestic Effects of Amyloid n

TITLE OF INVENTION: Protein and Improving the

TITLE OF INVENTION: Quality of Life in Individuals

TITLE OF INVENTION: With Alzheimer Disease

NUMBER OF SEQUENCES: 15

CORRESPONDENCE ADDRESS:

ADDRESSEE: City of Hope

STREET: 1500 East Duarte Road

CITY: Duarte

STATE: California

COUNTRY: United States of America

ZIP: 91010-0269

COMPUTER READABLE FORM:

MEDIUM TYPE: 3M Double Density 5 1/4" diskette

COMPUTER: Wang PC

OPERATING SYSTEM: MS DOS Version 3.20

SOFTWARE: Microsoft

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/127,904

FILING DATE: 29 September 1993

CLASSIFICATION: 424

PRIOR APPLICATION DATA: No. 5470951e

ATTORNEY/AGENT INFORMATION:

NAME: Irons, Edward S.

REGISTRATION NUMBER: 16,541

REFERENCE/DOCKET NUMBER: No. 5470951e

TELECOMMUNICATION INFORMATION:

TELEPHONE: **(202) 783**-6040

TELEFAX: (202) 783-6031

TELEX: No. 5470951e

INFORMATION FOR SEQ ID NO: 15:

SEQUENCE CHARACTERISTICS:

LENGTH: 5

TYPE: Amino Acid

STRANDEDNESS:

TOPOLOGY: Unknown

US-08-127-904-15

Query Match 100.0%; Score 20; DB 1; Length 5;

Best Local Similarity 100.0%; Pred. No. 1.7e+05;

Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LVFF 4

Db 2 LVFF 5

RESULT 22

US-08-970-833-2

; Sequence 2, Application US/08970833

: Patent No. 6022859

GENERAL INFORMATION:

APPLICANT: Kiessling, Laura L.

APPLICANT: Murphy, Regina M.

TITLE OF INVENTION: INHIBITORS OF BETA-AMYLOID TOXICITY

NUMBER OF SEQUENCES: 11

CORRESPONDENCE ADDRESS:

ADDRESSEE: Quarles & Brady

STREET: 411 East Wisconsin Avenue

CITY: Milwaukee

STATE: Wisconsin

COUNTRY: U.S.A.

ZIP: 53202-4497

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: PatentIn Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/970,833

FILING DATE:

CLASSIFICATION: 530

ATTORNEY/AGENT INFORMATION:

NAME: Baker, Jean C.

REGISTRATION NUMBER: 35,433

REFERENCE/DOCKET NUMBER: 960296.94291

TELECOMMUNICATION INFORMATION:

TELEPHONE: (414) 277-5709 TELEFAX: (414) 271-3552

INFORMATION FOR SEQ ID NO: 2:

SEQUENCE CHARACTERISTICS:

LENGTH: 5 amino acids

TYPE: amino acid

STRANDEDNESS: single

TOPOLOGY: linear

MOLECULE TYPE: peptide

US-08-970-833-2

Ouery Match 100.0%; Score 20; DB 3; Length 5;

Best Local Similarity 100.0%; Pred. No. 1.7e+05;

Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LVFF 4

||||

Db 2 LVFF 5

Search completed: October 2, 2002, 08:27:05

Job time: 132 sec

OM protein - protein search, using sw model

Run on:

October 2, 2002, 08:22:53; Search time 14.08 Seconds

(without alignments)

27.298 Million cell updates/sec

Title:

US-09-781-133-1

Perfect score: 20

Sequence:

1 LVFF 4

Scoring table: BLOSUM62

Gapop 10.0, Gapext 0.5

Searched:

283138 seqs, 96089334 residues

Total number of hits satisfying chosen parameters:

1099

Minimum DB seq length: 0 Maximum DB seq length: 10

Post-processing: Minimum Match 0%

Maximum Match 100% Listing first 100 summaries

Database:

PIR 71:*

- 1: pir1:*
- 2: pir2:*
- 3: pir3:*
- 4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

%

| Result No. | ` ' | ch Length DB ID | Description |
|---------------|---------------------|---------------------------|---------------------------------------|
| 1 2 | 20 100.0 15 75.0 | 9 2 PT0080 10 2 PT0310 | 60K Ca binding pro Ig heavy chain CRD |

| 3 | 15 75.0 | 10 2 PH08 07 | T-cell receptor al |
|----|---------|---------------------------|--------------------|
| 4 | 14 70.0 | 7 2 A 30812 | sex pheromone cCF1 |
| 5 | 13 65.0 | 9 2 B20569 | serum amyloid P-co |
| 6 | 13 65.0 | 10 2 B45 482 | platelet activatin |
| 7 | 12 60.0 | 4 2 JQ127 3 | neuropeptide Antho |
| 8 | 12 60.0 | 6 2 A6098 6 | N-formyl oligopept |
| 9 | 12 60.0 | 6 2 I59142 | platelet-derived g |
| 10 | 12 60.0 | 6 2 A43 129 | neuropeptide GNFFR |
| 11 | 12 60.0 | 8 2 T13818 | cytochrome oxidase |
| 12 | 12 60.0 | 9 2 PT03 15 | Ig heavy chain CRD |
| 13 | 12 60.0 | 9 2 B395 04 | octamer-binding pr |
| 14 | 12 60.0 | 10 1 SPPGNK | neuromedin K - pig |
| 15 | 12 60.0 | 10 2 S383 04 | lectin GNL1 alpha |
| 16 | 12 60.0 | 10 2 A27617 | triose-phosphate i |
| 17 | 12 60.0 | 10 2 PN0165 | triose-phosphate i |
| 18 | 12 60.0 | 10 2 A58365 | neuropeptide FFRFa |
| 19 | 12 60.0 | 10 2 T13838 | cytochrome-c oxida |
| 20 | 12 60.0 | 10 2 T139 76 | cytochrome-c oxida |
| 21 | 12 60.0 | 10 2 T17 057 | cytochrome-c oxida |
| 22 | 12 60.0 | 10 2 T12303 | cytochrome-c oxida |
| 23 | 12 60.0 | 1 0 2 T 14019 | cytochrome-c oxida |
| 24 | 12 60.0 | 10 2 T17 060 | cytochrome-c oxida |
| 25 | 12 60.0 | 1 0 2 T14 043 | cytochrome-c oxida |
| 26 | 12 60.0 | 10 2 T14054 | cytochrome-c oxida |
| 27 | 12 60.0 | 10 2 T17066 | cytochrome-c oxida |
| 28 | 12 60.0 | 1 0 2 T17 069 | cytochrome-c oxida |
| 29 | 12 60.0 | 10 2 T12308 | cytochrome-c oxida |
| 30 | 12 60.0 | 10 2 T17072 | cytochrome-c oxida |
| 31 | 12 60.0 | 10 2 T12312 | cytochrome-c oxida |
| 32 | 12 60.0 | 10 2 T12316 | cytochrome-c oxida |
| 33 | 12 60.0 | 10 2 T12321 | cytochrome-c oxida |
| 34 | 12 60.0 | 10 2 T14219 | cytochrome-c oxida |
| 35 | 11 55.0 | 9 2 A613 86 | macrophage inhibit |
| 36 | 11 55.0 | 10 2 PC2044 | beta-Kirilowin - M |
| 37 | 10 50.0 | 7 2 I405 04 | hypothetical prote |
| 38 | 10 50.0 | 8 2 S089 96 | hypertrehalosemic |
| 39 | 10 50.0 | 8 2 B498 23 | adipokinetic hormo |
| 40 | 10 50.0 | 8 2 B449 60 | neuropeptide Led-C |
| 41 | 10 50.0 | 8 2 A33 995 | adipokinetic hormo |
| 42 | 10 50.0 | 8 2 S115 45 | adipokinetic hormo |
| 43 | 10 50.0 | | adipokinetic hormo |
| 44 | 10 50.0 | | fibrinogen beta ch |
| 45 | 10 50.0 | | hypertrehalosemic |
| 46 | 10 50.0 | | hypertrehalosemic |
| 47 | 10 50.0 | | hypertrehalosemic/ |
| | | | |

| 48 | 10 | 50.0 | 10 2 B33995 | hypotrehalosemic h |
|----|----|------|---------------------|--------------------|
| 49 | 10 | 50.0 | 10 2 S39374 | mannose receptor - |
| 50 | 10 | 50.0 | 10 2 A32543 | cardioexcitatory n |
| 51 | 10 | 50.0 | 10 2 A61617 | ecdysteroid UDPglu |
| 52 | 10 | 50.0 | 10 2 C39191 | hypothetical prote |
| 53 | 10 | 50.0 | 10 2 I44644 | neurotoxin-associa |
| 54 | 10 | 50.0 | 10 2 A56633 | neomyosuppressin - |
| 55 | 10 | 50.0 | 10 2 S66214 | cartilage oligomer |
| 56 | 10 | 50.0 | 10 4 S14943 | UGA3 leader peptid |
| 57 | 9 | 45.0 | 3 3 \$683 28 | blood cell protein |
| 58 | 9 | 45.0 | 5 2 PT0278 | Ig heavy chain CRD |
| 59 | 9 | 45.0 | 6 2 S 11024 | hydrogensulfite re |
| 60 | 9 | 45.0 | 7 2 A252 69 | sex pheromone cAM3 |
| 61 | 9 | 45.0 | 7 2 S179 76 | glucose isomerase |
| 62 | 9 | 45.0 | 7 2 E339 32 | Ig mu chain D regi |
| 63 | 9 | 45.0 | 7 2 PX00 08 | glucuronosyltransf |
| 64 | 9 | 45.0 | 8 2 S224 28 | chitin-binding pro |
| 65 | 9 | 45.0 | 8 2 JS03 18 | leucokinin VIII - |
| 66 | 9 | 45.0 | 8 2 B278 67 | homeotic protein U |
| 67 | 9 | 45.0 | 8 2 B458 00 | serum albumin - do |
| 68 | 9 | 45.0 | 8 2 PC43 73 | telomeric and tetr |
| 69 | 9 | 45.0 | 8 2 A59 028 | MHC class I histoc |
| 70 | 9 | 45.0 | 9 2 D585 03 | translation elonga |
| 71 | 9 | 45.0 | 9 2 PD 0443 | 3-oxoacid CoA-tran |
| 72 | 9 | 45.0 | 9 2 S368 50 | Ig heavy chain V r |
| 73 | 9 | 45.0 | 10 1 ECLQ1M | tachykinin I - mig |
| 74 | 9 | 45.0 | 10 1 ECLQ3M | tachykinin III - m |
| 75 | 9 | 45.0 | 10 2 A49581 | sialokinin I - yel |
| 76 | 9 | 45.0 | 10 2 B49 581 | sialokinin II - ye |
| 77 | 9 | 45.0 | 10 2 A248 67 | scyliorhinin I - s |
| 78 | 9 | 45.0 | 10 2 B61033 | ranatachykinin B - |
| 79 | 9 | 45.0 | 10 2 PT0230 | Ig heavy chain CDR |
| 80 | 9 | 45.0 | 10 2 PT0215 | T-cell receptor be |
| 81 | 8 | 40.0 | 3 3 PQ0 010 | angiotensin-conver |
| 82 | 8 | 40.0 | 4 2 B438 48 | cell surface adhes |
| 83 | 8 | 40.0 | 4 2 T4662 7 | hypothetical prote |
| 84 | 8 | 40.0 | 5 2 C4122 5 | copper resistance |
| 85 | 8 | 40.0 | 7 2 PQ06 63 | membrane protein - |
| 86 | 8 | 40.0 | 7 2 PQ 0728 | unidentified 5.0/1 |
| 87 | 8 | 40.0 | 8 2 A37521 | R-phycoerythrin ga |
| 88 | 8 | 40.0 | 8 2 T109 52 | hypothetical prote |
| 89 | 8 | 40.0 | 8 2 G33098 | 205K exoantigen - |
| 90 | 8 | 40.0 | 8 2 A42057 | fibroblast growth |
| 91 | 8 | 40.0 | 8 2 PH0803 | T-cell receptor al |
| 92 | 8 | 40.0 | 8 2 S45651 | probable Na+-trans |

| 93 | 8 40.0 | 9 2 S109 20 | venom protein HR-3 |
|-----|--------|-----------------------|--------------------|
| 94 | 8 40.0 | 10 2 A46491 | C3 homolog HX - in |
| 95 | 8 40.0 | 10 2 B435 90 | pilin type Ae6 - A |
| 96 | 8 40.0 | 10 2 PC2172 | triacylglycerol li |
| 97 | 8 40.0 | 10 2 S13224 | virG protein - Agr |
| 98 | 8 40.0 | 10 2 I39702 | nopaline synthase |
| 99 | 8 40.0 | 10 2 S06 964 | hypothetical prote |
| 100 | 8 40. | 0 10 2 A43 590 | pilin type Ae1 - A |

RESULT 1

PT0080

60K Ca binding protein - edible frog (fragment)

C; Species: Rana esculenta (edible frog)

C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 16-Jul-1999

C; Accession: PT0080

R; Treveso, S.; Zorzato, F.; Chiozzi, P.; Melandri, P.; Volpe, P.; Pozzan, T.

Biochem. Biophys. Res. Commun. 175, 444-450, 1991

A; Title: Frog brain expresses a 60 kDa Ca2+ binding protein similar to mammalian calreticulin.

A;Reference number: PT0080; MUID:91207333

A; Accession: PT0080 A; Status: preliminary A; Molecule type: protein A; Residues: 1-9 < TRE>

Query Match 100.0%; Score 20; DB 2; Length 9; Best Local Similarity 100.0%; Pred. No. 2.8e+05; Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LVFF 4 ||||| Db 3 LVFF 6

RESULT 2

PT0310

Ig heavy chain CRD3 region (clone 6-97) - human (fragment)

C; Species: Homo sapiens (man)

C;Date: 30-Sep-1993 #sequence revision 30-Sep-1993 #text_change 16-Aug-1996

C; Accession: PT0310

R; Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.

J. Exp. Med. 173, 395-407, 1991

A, Title: Preferential utilization of specific immunoglobulin heavy chain diversity and joining segments

in adult human peripheral blood B lymphocytes. A;Reference number: PT0222; MUID:91108337

A;Accession: PT0310 A;Molecule type: DNA A;Residues: 1-10 < YAM>

A; Experimental source: B lymphocyte

C;Keywords: heterotetramer; immunoglobulin

Query Match 75.0%; Score 15; DB 2; Length 10; Best Local Similarity 75.0%; Pred. No. 7.7e+02; Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 LVFF 4 ||:| Db 3 LVWF 6

Search completed: October 2, 2002, 08:26:47

Job time: 234 sec

OM protein - protein search, using sw model

Run on:

October 2, 2002, 08:26:48; Search time 10.14 Seconds

(without alignments)

15 274 Million cell updates/sec

Title:

US-09-781-133-1

Perfect score: 20

Sequence:

1 LVFF 4

Scoring table: BLOSUM62

Gapop 10.0, Gapext 0.5

Searched:

105224 seqs, 38719550 residues

Total number of hits satisfying chosen parameters:

349

Minimum DB seq length: 0

Maximum DB seq length: 10

Post-processing: Minimum Match 0%

Maximum Match 100% Listing first 100 summaries

Database:

SwissProt 40:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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| Result No. | | Query re Mat | ch Length DB ID | Description |
|---------------|----|-----------------|-----------------|--------------------|
| 1 | 15 | 75.0 | 5 1 UC22_MAIZE | P80628 zea mays (m |
| 2 | 14 | 70.0 | 7 1 CCF1_ENTFA | P20104 enterococcu |
| 3 | 14 | 70.0 | 8 1 CPD1_ENTFA | P13269 enterococcu |
| 4 | 14 | 70.0 | 10 1 RCA_PINPS | P81084 pinus pinas |
| 5 | 13 | 65.0 | 8 1 UPAA_HUMAN | P30096 homo sapien |

| 6 | 13 65.0 | 9 1 SAMP MUSCA | P19095 mustelus ca |
|----|---------|-----------------|--------------------|
| 7 | 12 60.0 | 4 1 FFKA ANTEL | P58705 anthopleura |
| 8 | 12 60.0 | 5 1 PAP2 PARMA | P81864 pardachirus |
| 9 | 12 60.0 | 5 1 RE11 LITRU | P82070 litoria rub |
| 10 | 12 60.0 | 5 1 RE21 LITRU | P82071 litoria rub |
| 11 | 12 60.0 | 5 1 RE31 LITRU | P82072 litoria rub |
| 12 | 12 60.0 | 5 1 RE32 LITRU | P82073 litoria rub |
| 13 | 12 60.0 | 6 1 FARP MONEX | P41966 moniezia ex |
| 14 | 12 60.0 | 10 1 FARP MYTED | P42560 mytilus edu |
| 15 | 12 60.0 | 10 1 PAP1_PARMA | P81863 pardachirus |
| 16 | 12 60.0 | 10 1 TKNK PIG | P01292 sus scrofa |
| 17 | 12 60.0 | 10 1 TKU2 UREUN | P40752 urechis uni |
| 18 | 12 60.0 | 10 1 TPIS NICPL | P19118 nicotiana p |
| 19 | 12 60.0 | 10 1 TRP6 LEUMA | P81738 leucophaea |
| 20 | 12 60.0 | 10 1 TRP7 LEUMA | P81739 leucophaea |
| 21 | 11 55.0 | 9 1 FAR5 PANRE | P82661 panagrellus |
| 22 | 10 50.0 | 8 1 AKH TABAT | P14595 tabanus atr |
| 23 | 10 50.0 | 8 1 HTF2 PERAM | P04549 periplaneta |
| 24 | 10 50.0 | 8 1 PPK3 PERAM | P82618 periplaneta |
| 25 | 10 50.0 | 9 1 FIBB ERYPA | P19346 erythrocebu |
| 26 | 10 50.0 | 10 1 FARP LOCMI | P38553 locusta mig |
| 27 | 10 50.0 | 10 1 HTF2_CARMO | P11385 carausius m |
| 28 | 10 50.0 | 10 1 HTF_HELZE | P16353 heliothis z |
| 29 | 10 50.0 | 10 1 HTF_TABAT | P14596 tabanus atr |
| 30 | 10 50.0 | 10 1 LCMS_LEUMA | P21144 leucophaea |
| 31 | 10 50.0 | 10 1 NEMS_DROME | P41494 drosophila |
| 32 | 9 45.0 | 4 1 FYRI_ANTEL | P58706 anthopleura |
| 33 | 9 45.0 | 7 1 CIA_ENTFA | P11932 enterococcu |
| 34 | 9 45.0 | 8 1 LCK8_LEUMA | P19990 leucophaea |
| 35 | 9 45.0 | 8 1 NS3_MYCTU | P81152 mycobacteri |
| 36 | 9 45.0 | 9 1 NEUU_CAVPO | P34966 cavia porce |
| 37 | 9 45.0 | 9 1 NEUX_HUMAN | P04277 homo sapien |
| 38 | 9 45.0 | 9 1 OXYF_SCYCA | P42997 scyliorhinu |
| 39 | 9 45.0 | 9 1 OXYT_OCTVU | P80027 octopus vul |
| 40 | 9 45.0 | 9 1 TKC1_CALVO | P41517 calliphora |
| 41 | 9 45.0 | 9 1 TKL1_LOCMI | P16223 locusta mig |
| 42 | 9 45.0 | 10 1 ANG1_BOTJA | Q10581 bothrops ja |
| 43 | 9 45.0 | 10 1 GON1_CHEPR | P80677 chelyosoma |
| 44 | 9 45.0 | 10 1 TKL2_LOCMI | P16224 locusta mig |
| 45 | 9 45.0 | 10 1 TKL3_LOCMI | P30249 locusta mig |
| 46 | 9 45.0 | 10 1 TKN1_SCYCA | P08608 scyliorhinu |
| 47 | 9 45.0 | 10 1 TKNB_RANCA | P22689 rana catesb |
| 48 | 9 45.0 | 10 1 TKS1_AEDAE | P42634 aedes aegyp |
| 49 | 9 45.0 | 10 1 TKS2_AEDAE | P42635 aedes aegyp |
| 50 | 8 40.0 | 7 1 UN06_PINPS | P81675 pinus pinas |
| | | | |

| 51 | 8 | 40.0 | 8 1 CAD1_ENTFA | P13268 enterococcu |
|----|---|------|-----------------|--------------------|
| 52 | 8 | 40.0 | 9 1 ULAD_HUMAN | P31929 homo sapien |
| 53 | 8 | 40.0 | 9 1 UPA7_HUMAN | P30093 homo sapien |
| 54 | 8 | 40.0 | 10 1 AKHX_LOCMI | P81626 locusta mig |
| 55 | 8 | 40.0 | 10 1 NS1_MYCTU | P81135 mycobacteri |
| 56 | 8 | 40.0 | 10 1 UPA5 HUMAN | P30091 homo sapien |
| 57 | 8 | 40.0 | 10 1 UXA2 CHLTR | P38003 chlamydia t |
| 58 | 7 | 35.0 | 4 1 FAR3 HIRME | P42562 hirudo medi |
| 59 | 7 | 35.0 | 4 1 FLRF HIRME | P42561 hirudo medi |
| 60 | 7 | 35.0 | 6 1 CIP1 MYTED | P13736 mytilus edu |
| 61 | 7 | 35.0 | 6 1 CIP2 MYTED | P13737 mytilus edu |
| 62 | 7 | 35.0 | 7 1 FART HELTI | P41871 helisoma tr |
| 63 | 7 | 35.0 | 7 1 FAR1 PROCL | P38499 procambarus |
| 64 | 7 | 35.0 | 7 1 FAR2_ASCSU | P31890 ascaris suu |
| 65 | 7 | 35.0 | 7 1 FAR2_PROCL | P38498 procambarus |
| 66 | 7 | 35.0 | 7 1 GFRP_MOUSE | P99025 mus musculu |
| 67 | 7 | 35.0 | 7 1 TY51 LITRU | P82065 litoria rub |
| 68 | 7 | 35.0 | 8 1 AKHG_GRYBI | P14086 gryllus bim |
| 69 | 7 | 35.0 | 8 1 AKH_LIBAU | P25418 libellula a |
| 70 | 7 | 35.0 | 8 1 ANG2_BOTJA | Q10582 bothrops ja |
| 71 | 7 | 35.0 | 8 1 COXG_RAT | P80430 rattus norv |
| 72 | 7 | 35.0 | 8 1 FAR1_PANRE | P41872 panagrellus |
| 73 | 7 | 35.0 | 8 1 FAR3_HOMAM | P41486 homarus ame |
| 74 | 7 | 35.0 | 8 1 FAR4_HOMAM | P41487 homarus ame |
| 75 | 7 | 35.0 | 8 1 HTF1_PERAM | P04548 periplaneta |
| 76 | 7 | 35.0 | 8 1 HTF_TENMO | P25419 tenebrio mo |
| 77 | 7 | 35.0 | 8 1 NPB_BOVIN | P15507 bos taurus |
| 78 | 7 | 35.0 | 8 1 RPCH_PANBO | P08939 pandalus bo |
| 79 | 7 | 35.0 | 9 1 BUK_CLOPA | P81337 clostridium |
| 80 | 7 | 35.0 | 9 1 D1_NEPNO | P24816 nephrops no |
| 81 | 7 | 35.0 | 9 1 DNF1_LOCMI | P16339 locusta mig |
| 82 | 7 | 35.0 | 9 1 FAR2_PANRE | P41873 panagrellus |
| 83 | 7 | 35.0 | 9 1 FAR9_ASCSU | P43172 ascaris suu |
| 84 | 7 | 35.0 | 9 1 FARP_CALSI | P38495 callinectes |
| 85 | 7 | 35.0 | 9 1 FIBB_MACFU | P19345 macaca fusc |
| 86 | 7 | 35.0 | 9 1 FIBB_PAPAN | P19344 papio anubi |
| 87 | 7 | 35.0 | 9 1 FIBB_PAPHA | P19343 papio hamad |
| 88 | 7 | 35.0 | 9 1 FIBB_THEGE | P19342 theropithec |
| 89 | 7 | 35.0 | 9 1 FLA2_TREHY | P80159 treponema h |
| 90 | 7 | 35.0 | 9 1 MOSF_CLYJA | P19853 clypeaster |
| 91 | 7 | 35.0 | 9 1 MOSH_CLYJA | P19852 clypeaster |
| 92 | 7 | 35.0 | 9 1 ULAE_HUMAN | P31931 homo sapien |
| 93 | 7 | 35.0 | 9 1 UPA3_HUMAN | P30089 homo sapien |
| 94 | 7 | 35.0 | - | P01017 bos taurus |
| 95 | 7 | 35.0 | 10 1 ANGT_CHICK | P01018 gallus gall |
| | | | | |

| 96 | 7 35.0 | 10 1 APE_CAPGI | P80474 capnocytoph |
|-----|--------|-----------------|--------------------|
| 97 | 7 35.0 | 10 1 CA12 LITCI | P82086 litoria cit |
| 98 | | 10 1 FAR6 PANRE | P82660 panagrellus |
| 99 | | 10 1 FARP MANSE | P18523 manduca sex |
| 100 | | 10 1 GS09_BACSU | P80243 bacillus su |

RESULT 1 UC22 MAIZE 5 AA. ID UC22 MAIZE STANDARD; PRT; AC P80628; DT 01-OCT-1996 (Rel. 34, Created) DT 01-OCT-1996 (Rel. 34, Last sequence update) DT 15-JUL-1999 (Rel. 38, Last annotation update) DE Unknown protein from 2D-page of etiolated coleoptile (Spot 474) DE (Fragment). OS Zea mays (Maize). OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; OC Spermatophyta; Magnoliophyta; Liliopsida, Poales; Poaceae; PACC clade; OC Panicoideae; Andropogoneae; Zea. OX NCBI TaxID=4577; RN [1] RP SEQUENCE. RC TISSUE=Coleoptile; RA Touzet P., Riccardi F., Morin C., Damerval C., Huet J.-C., RA Pernollet J.-C., Zivy M., de Vienne D.; RT "The maize two dimensional gel protein database: towards an integrated RT genome analysis program."; RL Theor. Appl. Genet. 93:997-1005(1996). CC -!- MISCELLANEOUS: ON THE 2D-GEL THE DETERMINED PI OF THIS UNKNOWN PROTEIN IS: 6.1, ITS MW IS: 30.4 kDa. DR Maize-2DPAGE; P80628; COLEOPTILE. DR MaizeDB; 123954; -. FT NON TER 1 FT NON TER 5 SQ SEQUENCE 5 AA; 654 MW; 72CB19C9C0300000 CRC64;

```
Query Match 75.0%; Score 15; DB 1; Length 5;
Best Local Similarity 66.7%; Pred. No. 1e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
```

2 VFF 4 Qу :|| 1 IFF 3 Db

Search completed: October 2, 2002, 08:30:20 Job time: 212 sec

OM protein - protein search, using sw model

Run on:

October 2, 2002, 08:26:28; Search time 23.82 Seconds

(without alignments)

29.050 Million cell updates/sec

Title:

US-09-781-133-1

Perfect score: 20

Sequence:

1 LVFF 4

Scoring table: BLOSUM62

Gapop 10.0, Gapext 0.5

Searched:

562222 seqs, 172994929 residues

Total number of hits satisfying chosen parameters:

1088

Minimum DB seq length: 0

Maximum DB seq length: 10

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 100 summaries

Database:

SPTREMBL_19:*

1: sp_archea:*

2: sp_bacteria:*

3: sp fungi:*

4: sp_human:*

5: sp_invertebrate:*

6: sp_mammal:*

7: sp _mhc:*

8: sp_organelle:*

9: sp_phage:*

10: sp_plant:*

11: sp rodent:*

12: sp_virus:*

13: sp_vertebrate:*

14: sp_unclassified:*

15: sp_rvirus:*

16: sp_bacteriap:*17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Λ | , | |
|----|---|--|
| v, | r | |
| | | |

| | 70 | D | | |
|--------|------|--------|------------------------------|--------------------|
| Result | | Query | | |
| No. | Scor | e Mato | ch Length DB ID | Description |
| 1 | 18 | 90.0 | 9 8 Q9GD 36 | Q9gd36 juncus effu |
| 2 | 17 | 85.0 | 10 12 O39952 | O39952 hepatitis g |
| 3 | 17 | 85.0 | 10 12 Q 9WLE4 | Q9wle4 hepatitis g |
| 4 | 16 | 80.0 | 9 10 P82440 | P82440 nicotiana t |
| 5 | 15 | 75.0 | 8 3 O13591 | O13591 saccharomyc |
| 6 | 15 | 75.0 | 9 2 O307 90 | O30790 erwinia amy |
| 7 | 14 | 70.0 | 9 8 Q94VG2 | Q94vg2 varanus ind |
| 8 | 13 | 65.0 | 8 10 Q40530 | Q40530 nicotiana t |
| 9 | 12 | 60.0 | 5 13 P82070 | P82070 litoria rub |
| 10 | 12 | 60.0 | 5 13 P82071 | P82071 litoria rub |
| 11 | 12 | 60.0 | 5 13 P82072 | P82072 litoria rub |
| 12 | 12 | 60.0 | 5 13 P82073 | P82073 litoria rub |
| 13 | 12 | 60.0 | 8 8 Q9TD02 | Q9td02 terranatos |
| 14 | 12 | 60.0 | 8 8 Q9T4Y2 | Q9t4y2 asterina pe |
| 15 | 12 | 60.0 | 8 11 Q99NX9 | Q99nx9 hydrochoeru |
| 16 | 12 | 60.0 | 9 4 Q99887 | Q99887 homo sapien |
| 17 | 12 | 60.0 | 9 8 Q 9T688 | Q9t688 gecko gecko |
| 18 | 12 | 60.0 | 10 2 Q9XBH3 | Q9xbh3 bacillus ce |
| 19 | 12 | 60.0 | 10 2 Q 9AE19 | Q9ae19 streptococc |
| 20 | 12 | 60.0 | 10 8 Q 9T4P9 | Q9t4p9 liolaemus d |
| 21 | 12 | 60.0 | 10 8 Q9ZYV3 | Q9zyv3 dipsosaurus |
| 22 | 12 | 60.0 | 10 8 Q9ZYV0 | Q9zyv0 petrosaurus |
| 23 | 12 | 60.0 | 10 8 Q 9 Z YU7 | Q9zyu7 sator angus |
| 24 | 12 | 60.0 | 10 8 Q9ZYU4 | Q9zyu4 sceloporus |
| 25 | 12 | 60.0 | 10 8 Q 9 Z YU1 | Q9zyu1 uma scopari |
| 26 | 12 | 60.0 | 10 8 Q9ZYT8 | Q9zyt8 urosaurus g |
| 27 | 12 | 60.0 | 10 8 Q9ZYT5 | Q9zyt5 uta stansbu |
| 28 | 12 | 60.0 | 10 8 Q9ZYS9 | Q9zys9 phymaturus |
| 29 | 12 | 60.0 | 10 8 Q9TG98 | Q9tg98 shinisaurus |
| 30 | 12 | 60.0 | 10 8 Q 9TFU9 | Q9tfu9 teratoscinc |
| 31 | 12 | | 10 8 Q 9TFU6 | Q9tfu6 teratoscinc |
| 32 | 12 | | 10 8 P92758 | P92758 teratoscinc |
| 33 | 12 | 60.0 | 10 8 P92 648 | P92648 lialis jica |
| | | | | |

| 34 | 12 | 60.0 | 10 8 P92707 | P92707 platysaurus |
|----|----|------|---------------------------------------|--------------------|
| 35 | 12 | 60.0 | 10 8 P92654 | P92654 mabuya aura |
| 36 | 12 | 60.0 | 10 8 P92632 | P92632 eremias gra |
| 37 | 12 | 60.0 | 10 8 P92616 | P92616 cnemidophor |
| 38 | 12 | 60.0 | 10 8 P92771 | P92771 xenosaurus |
| 39 | 12 | 60.0 | 10 8 P92576 | P92576 bipes bipor |
| 40 | 12 | 60.0 | 10 8 O79885 | O79885 anolis pate |
| 41 | 12 | 60.0 | 10 8 O 79891 | O79891 crotaphytus |
| 42 | 12 | 60.0 | 10 8 O 79894 | O79894 gambelia wi |
| 43 | 12 | 60.0 | 10 8 O 79900 | O79900 liolaemus p |
| 44 | 12 | 60.0 | 10 8 O 79903 | O79903 oplurus cuv |
| 45 | 12 | 60.0 | 10 8 O 79906 | O79906 phrynosoma |
| 46 | 12 | 60.0 | 10 8 O7 9909 | O79909 sauromalus |
| 47 | 12 | 60.0 | 10 8 Q9T8X7 | Q9t8x7 phymaturus |
| 48 | 12 | 60.0 | 10 8 Q9T8X4 | Q9t8x4 liolaemus c |
| 49 | 12 | 60.0 | 10 8 Q9T8W8 | Q9t8w8 liolaemus b |
| 50 | 12 | 60.0 | 10 8 Q9T8W2 | Q9t8w2 liolaemus b |
| 51 | 12 | 60.0 | 10 8 Q 9T8V9 | Q9t8v9 liolaemus g |
| 52 | 12 | 60.0 | 10 8 Q9T8V6 | Q9t8v6 liolaemus b |
| 53 | 12 | 60.0 | 10 8 Q9T8V3 | Q9t8v3 liolaemus c |
| 54 | 12 | 60.0 | 10 8 Q9T8V0 | Q9t8v0 liolaemus c |
| 55 | 12 | 60.0 | 10 8 Q9T8U8 | Q9t8u8 liolaemus p |
| 56 | 12 | 60.0 | 10 8 Q9T8U5 | Q9t8u5 liolaemus z |
| 57 | 12 | 60.0 | 10 8 Q9T8U2 | Q9t8u2 liolaemus t |
| 58 | 12 | 60.0 | 10 8 Q 9 T 8 T 9 | Q9t8t9 liolaemus l |
| 59 | 12 | 60.0 | 10 8 Q 9T8T6 | Q9t8t6 liolaemus m |
| 60 | 12 | 60.0 | 10 8 Q9T8T3 | Q9t8t3 liolaemus n |
| 61 | 12 | 60.0 | 10 8 Q9T8T0 | Q9t8t0 liolaemus f |
| 62 | 12 | 60.0 | 10 8 Q9T8S7 | Q9t8s7 liolaemus n |
| 63 | 12 | 60.0 | 10 8 Q9T8S4 | Q9t8s4 liolaemus c |
| 64 | 12 | 60.0 | 10 8 Q9T8S1 | Q9t8s1 liolaemus l |
| 65 | 12 | 60.0 | 10 8 Q 9T8R9 | Q9t8r9 liolaemus b |
| 66 | 12 | 60.0 | 10 8 Q9T8R7 | Q9t8r7 liolaemus c |
| 67 | 12 | 60.0 | 10 8 Q9T8R4 | Q9t8r4 liolaemus p |
| 68 | 12 | | 10 8 Q9T8R1 | Q9t8r1 liolaemus a |
| 69 | 12 | | 10 8 Q 9T8Q8 | Q9t8q8 liolaemus e |
| 70 | 12 | 60.0 | 10 8 Q 9T8Q5 | Q9t8q5 liolaemus l |
| 71 | 12 | 60.0 | 10 8 Q 9T8Q2 | Q9t8q2 liolaemus s |
| 72 | 12 | | 10 8 Q9T8P9 | Q9t8p9 liolaemus m |
| 73 | 12 | | 10 8 Q 9T8P6 | Q9t8p6 liolaemus r |
| 74 | 12 | | 10 8 Q 9T8N4 | Q9t8n4 liolaemus d |
| 75 | 12 | | 10 8 Q 9T8N1 | Q9t8n1 liolaemus p |
| 76 | 12 | | 10 8 Q 9T8M8 | Q9t8m8 liolaemus m |
| 77 | 12 | 60.0 | 10 8 Q9T8M5 | Q9t8m5 liolaemus a |
| 78 | 12 | 60.0 | 10 8 Q9T8M2 | Q9t8m2 liolaemus c |

| 79 | 12 | 60.0 | 10 8 Q9T8L6 | Q9t816 liolaemus p |
|-----|----|------|---------------------|--------------------|
| 80 | 12 | 60.0 | 10 8 Q9T8L3 | Q9t813 liolaemus 1 |
| 81 | 12 | 60.0 | 10 8 Q9T8L0 | Q9t810 liolaemus o |
| 82 | 12 | 60.0 | 10 8 Q9T8K7 | Q9t8k7 liolaemus m |
| 83 | 12 | 60.0 | 10 8 Q9T8K4 | Q9t8k4 liolaemus s |
| 84 | 12 | 60.0 | 10 8 Q9T8K1 | Q9t8k1 liolaemus s |
| 85 | 12 | 60.0 | 10 8 Q9T8J8 | Q9t8j8 liolaemus w |
| 86 | 12 | 60.0 | 10 8 Q 9T8J5 | Q9t8j5 liolaemus m |
| 87 | 12 | 60.0 | 10 8 Q9T8J2 | Q9t8j2 liolaemus r |
| 88 | 12 | 60.0 | 10 8 Q 9T819 | Q9t8i9 liolaemus a |
| 89 | 12 | 60.0 | 10 8 Q9T8I6 | Q9t8i6 liolaemus k |
| 90 | 12 | 60.0 | 10 8 Q9T8I3 | Q9t8i3 liolaemus q |
| 91 | 12 | 60.0 | 10 8 Q 9T8I0 | Q9t8i0 liolaemus o |
| 92 | 12 | 60.0 | 10 8 Q9T8H7 | Q9t8h7 liolaemus a |
| 93 | 12 | 60.0 | 10 8 Q 9T8H4 | Q9t8h4 liolaemus i |
| 94 | 12 | 60.0 | 10 8 Q 9T8H1 | Q9t8h1 liolaemus u |
| 95 | 12 | 60.0 | 10 8 Q 9T8G8 | Q9t8g8 liolaemus c |
| 96 | 12 | 60.0 | 10 8 Q9T8G5 | Q9t8g5 liolaemus o |
| 97 | 12 | 60.0 | 10 8 Q9T8G0 | Q9t8g0 liolaemus l |
| 98 | 12 | 60.0 | 10 8 Q9T8F5 | Q9t8f5 liolaemus b |
| 99 | 12 | 60.0 | 10 8 Q958L8 | Q95818 rana catesb |
| 100 | 12 | 60.0 | 10 8 Q958L5 | Q95815 rana sylvat |

RESULT 1 Q9GD36

- ID Q9GD36 PRELIMINARY; PRT; 9 AA.
- AC Q9GD36;
- DT 01-MAR-2001 (TrEMBLrel 16, Created)
- DT 01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
- DT 01-MAR-2001 (TrEMBLrel 16, Last annotation update)
- DE RIBOSOMAL PROTEIN \$16 (FRAGMENT).
- GN RPS16.
- OS Juncus effusus.
- OG Chloroplast.
- OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
- OC Spermatophyta; Magnoliophyta; Liliopsida; Poales; Juncaceae; Juncus.
- OX NCBI_TaxID=13579;
- RN [1]
- RP SEQUENCE FROM N.A.
- RC TISSUE=LEAF;
- RA Asmussen C.B., Chase M.W.;

RT "Coding and noncoding plastid DNA in palm systematics.";

RL Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.

DR EMBL, AJ404962; CAC17904.1, -.

KW Chloroplast.

FT NON_TER 1 1

FT NON_TER 9 9

SQ SEQUENCE 9 AA; 1135 MW; 8DCCC9D2C046CB41 CRC64;

Query Match 90.0%; Score 18; DB 8; Length 9;

Best Local Similarity 75.0%; Pred. No. 5.6e+05;

Matches 3, Conservative 1, Mismatches 0, Indels 0, Gaps 0,

Qy 1 LVFF 4

:|||

Db 5 IVFF 8

Search completed: October 2, 2002, 08:30:03

Job time: 215 sec